



Rehabilitation of Tidewater Drive Underpass and Little Creek Road Bridge



Tidewater Dr./Little Creek Rd. Intersection

- **Rehabilitation of Tidewater Drive underpass and replacement of Little Creek bridge is needed to improve aging infrastructure**
- **Existing bridge and underpass were constructed in the late 1950's**
- **Construction is scheduled to begin in January, 2014 and take 8-10 months to complete (major road closures limited to 4-5 months)**
- **Estimated construction cost: \$4.4 Million**

Tidewater Dr./Little Creek Rd. circa 1959



History of the Intersection

- **Tidewater Drive was originally constructed as a primary thoroughfare prior to interstate**
- **Increase in traffic volume due to construction of the first half of the Hampton Roads Bridge Tunnel. Underpass was constructed in the late 1950's**
- **As a thoroughfare, emphasis was given to moving traffic along Tidewater Drive, resulting in grade-separated interchanges**

Current Conditions:



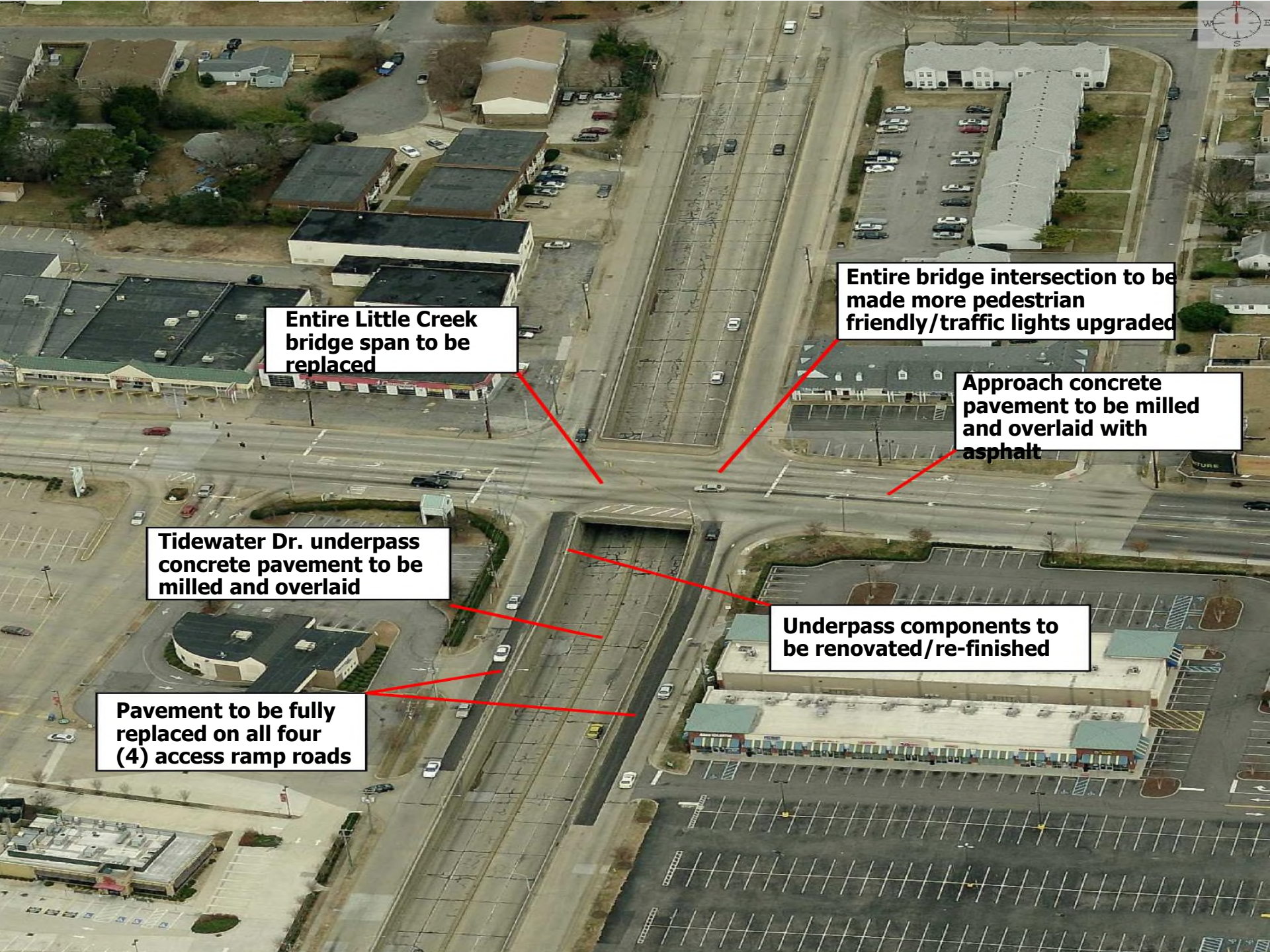
Current Conditions:

- **Little Creek Bridge deck deteriorating, in need of replacement; was constructed in late 1950's**
- **Traffic signals are overdue for replacement and improvement; new signals are needed at most traffic points**
- **Heavily worn structural road bed thru underpass**
 - **Thick reinforced concrete base slabs**
- **Joint Repairs along the concrete walls are required; joint materials are old and deteriorating**
- **Deterioration of feeder ramp roads**
- **Old and deteriorating concrete medians**
- **Stormwater Pump Station being overhauled as part of a separate project during Winter-Spring, 2013**

Planned Renovations:

The following work will be done as part of the underpass renovation project:

- Replace the Little Creek Rd. bridge deck**
- Rehabilitate underpass concrete walls and resurface the Tidewater Drive pavement**
- Replace water main around intersection**
- Replace pavement on all four access ramps leading to & from Tidewater Drive**
- Replace all traffic signals at intersection**
- Improve Stop conditions for Little Creek Rd. to Tidewater Drive NB and SB ramps**
- Make the entire intersection more pedestrian/bike friendly**



**Entire Little Creek
bridge span to be
replaced**

**Entire bridge intersection to be
made more pedestrian
friendly/traffic lights upgraded**

**Approach concrete
pavement to be milled
and overlaid with
asphalt**

**Tidewater Dr. underpass
concrete pavement to be
milled and overlaid**

**Underpass components to
be renovated/re-finished**

**Pavement to be fully
replaced on all four
(4) access ramp roads**

PROPOSED CROSS SECTION (LOOKING WEST)

1. REMOVE EXISTING BRIDGE AND REPLACE WITH NEW
MEDIAN REPAIRS
LITTLE CREEK - 2 THRU LANES OPEN EACH DIRECTION (2A: 1 WEEK) (2B: 1 WEEK)

2. REPLACE TRAFFIC SIGNALS

3. MILL AND OVERLAY PAVEMENT - TIDEWATER -
MILL AND OVERLAY APPROACH PAVEMENT -
LITTLE CREEK -
AESTHETIC STAIN OF EXISTING RETAINING WALLS
ALL STRIPING
1 LANE OPEN EACH DIRECTION (3A: 2 WEEK) (3B: 2 WEEK) (3C: NIGHTS ONLY)

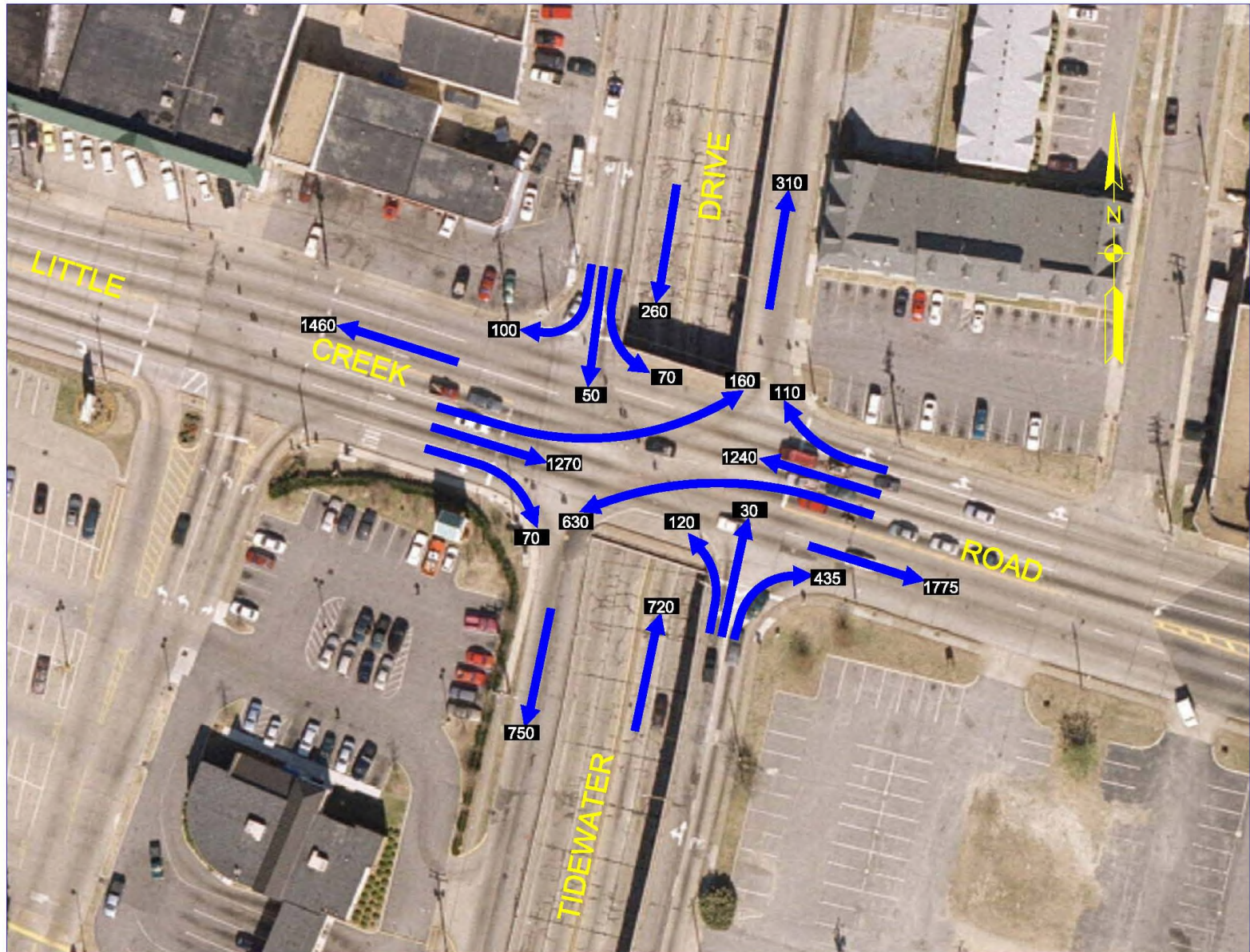
1. REMOVE AND REPLACE PAVEMENT AND CURBS ON ALL 4 RAMPS
REPLACE WATERLINES (CLOSURE 12 WEEKS)

PROJECT SCOPE OF WORK

TIDEWATER DRIVE & LITTLE CREEK ROAD INTERSECTION RECONSTRUCTION

PARSONS BRINCKERHOFF

Current Traffic Counts (PM hourly volumes)



Traffic Detouring:

- **The only significant detour will be for closure of access/turning ramps (10-14 weeks)**
- **Thru-traffic on Tidewater and Little Creek will remain fully open during closure of ramps**
- **Southbound on Tidewater, north of Little Creek:**
 - **Traffic wishing to travel east on Little Creek will be detoured east onto Bayview Ave. to Chesapeake Blvd.**
 - **Traffic wishing to travel west on Little Creek will be detoured west onto Bayview Ave. to Granby Street, or onto I-64 up to Little Creek**

Traffic Detouring:

Northbound on Tidewater, south of Little Creek:

- Traffic wishing to travel west on Little Creek will be detoured west onto Thole St. then to Granby St.**
- Traffic wishing to travel east on Little Creek will be detoured either east onto Widgeon Rd. or east on Central Park Business Dr. to Sewell's Point Rd.**
- Local business traffic will still enter the intersection and be detoured locally**

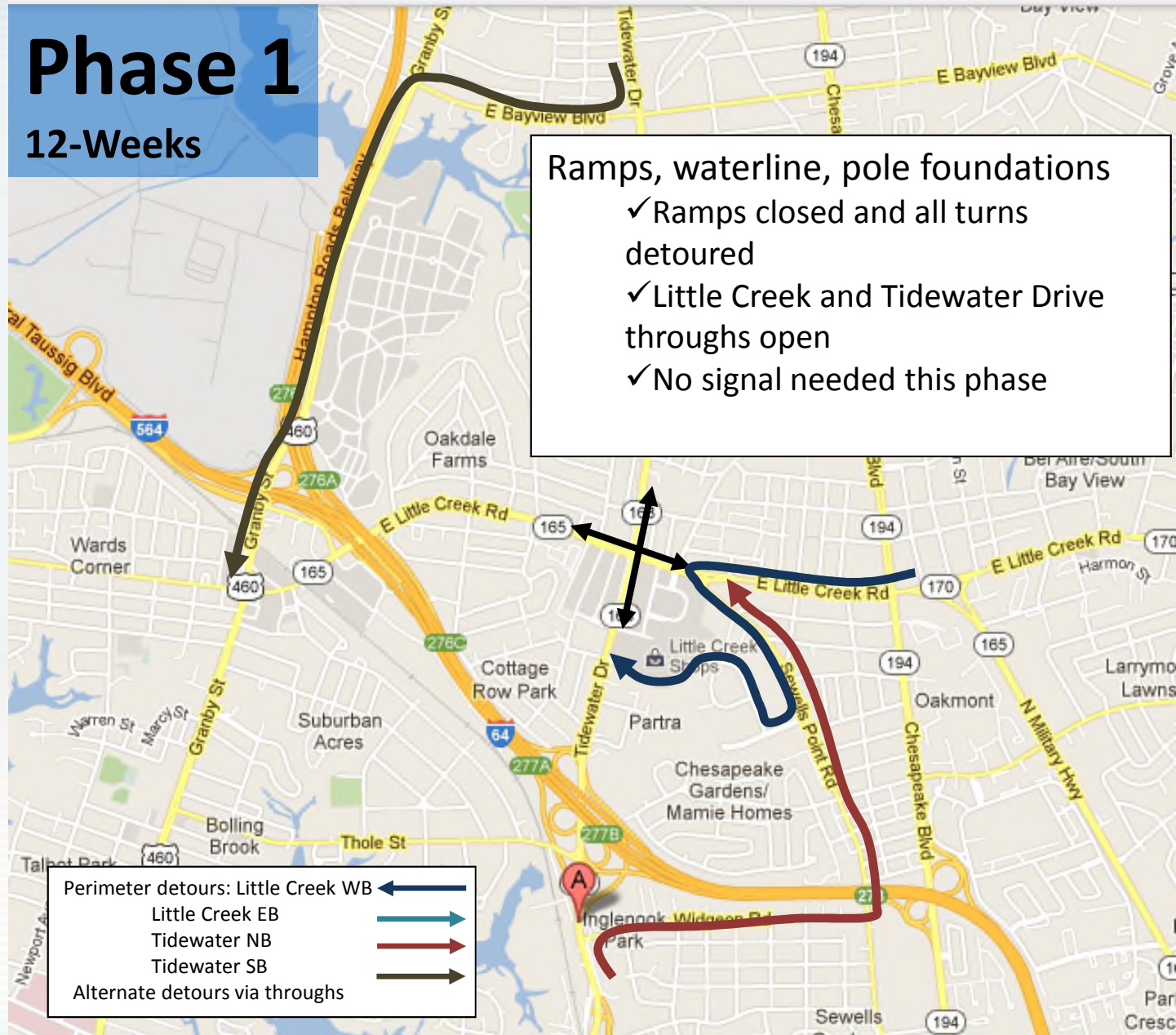
Traffic Detouring (Phase 1):

Phase 1

12-Weeks

Ramps, waterline, pole foundations

- ✓ Ramps closed and all turns detoured
- ✓ Little Creek and Tidewater Drive throughs open
- ✓ No signal needed this phase



Perimeter detours: Little Creek WB

Little Creek EB

Tidewater NB

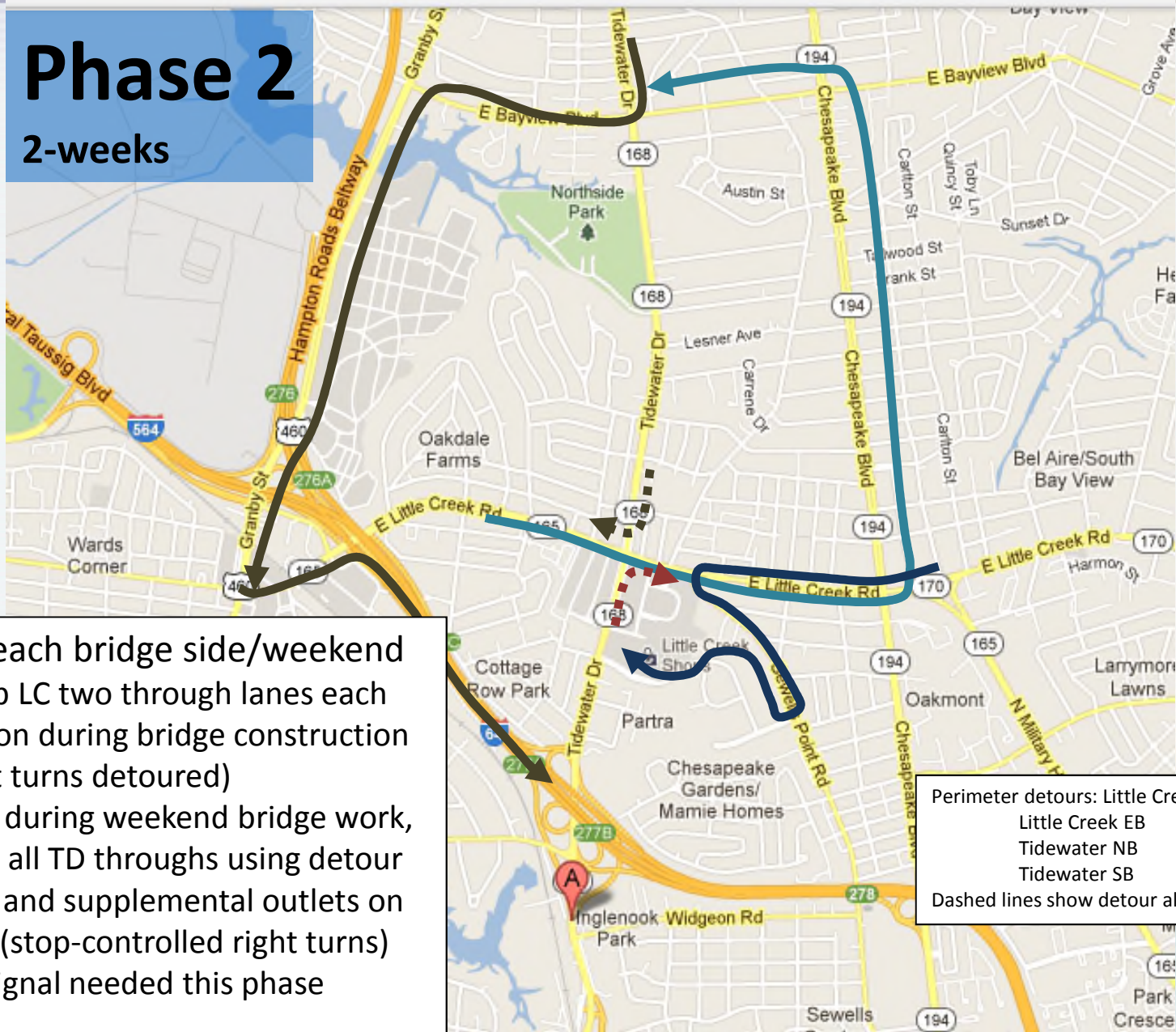
Tidewater SB

Alternate detours via throughs

Traffic Detouring (Phase 2):

Phase 2

2-weeks



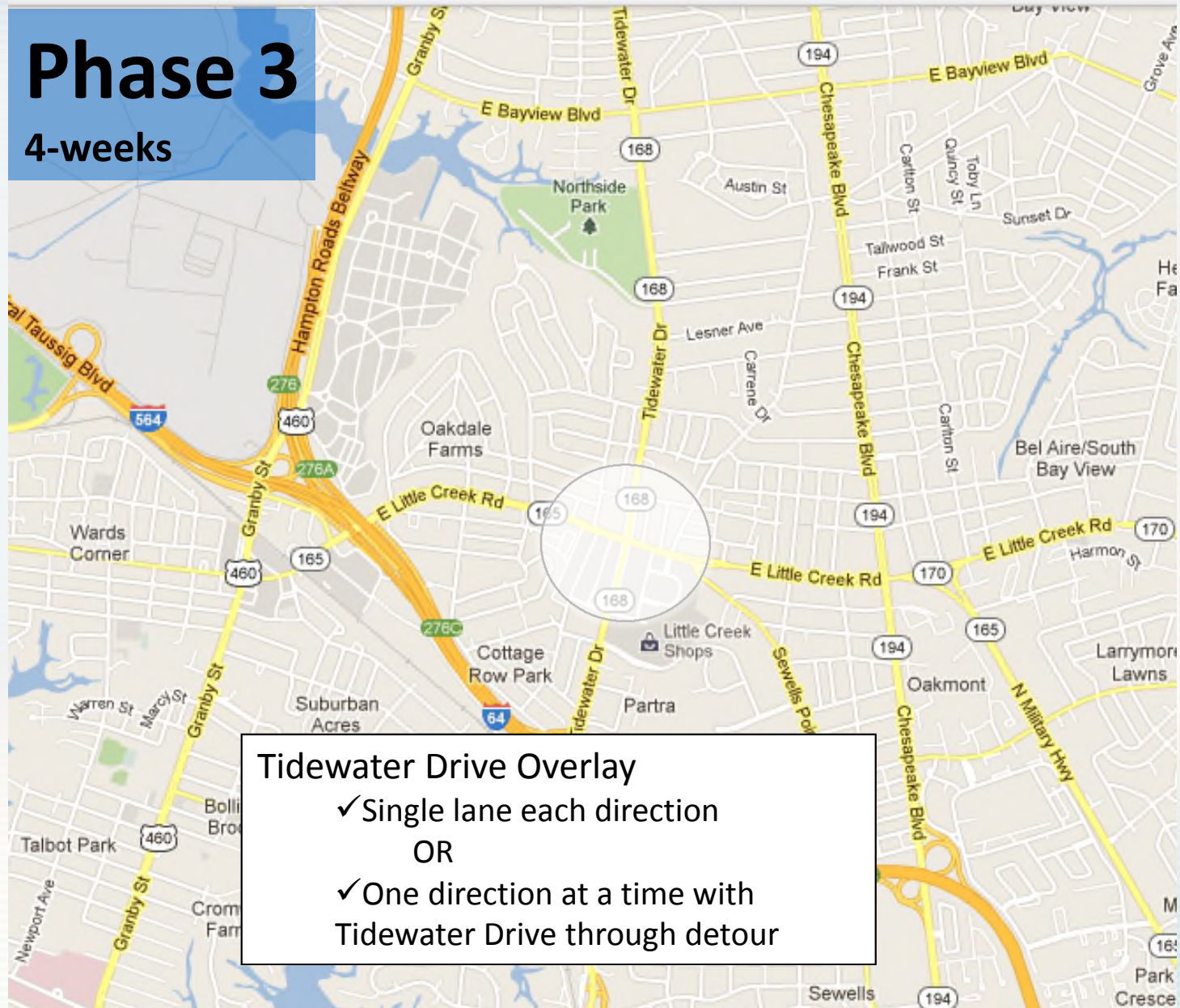
Construct each bridge side/weekend

- ✓ Keep LC two through lanes each direction during bridge construction (all left turns detoured)
- ✓ Only during weekend bridge work, detour all TD throughs using detour routes and supplemental outlets on ramps (stop-controlled right turns)
- ✓ No signal needed this phase

Traffic Detouring (Phase 3):

Phase 3

4-weeks



Tidewater Drive Overlay

- ✓ Single lane each direction
- OR
- ✓ One direction at a time with
Tidewater Drive through detour

Project Schedule:

- **Design is 30% complete (Oct. 2012)**
- **Scheduled to advertise Construction bids in Summer, 2013**
- **Construction scheduled to start in January, 2014, avoiding major holiday shopping season at end of 2013**
- **Full construction to take 8-10 months**
- **Goal is to finish major construction before holiday shopping season, 2014**

Project Funding Summary:

- **Design and construction are fully funded; 50% Revenue Sharing with VDOT**

Description	Amount
Total estimated underpass renovation construction cost	\$4.4 Million
VDOT Revenue Sharing Funds	\$2.2 Million
City CIP funding match	\$2.2 Million

Additional 2013 Tidewater Dr. Work :



2013 – Tidewater Dr. to be repaved from Stanley to Easy Street

2013 – Sidewalks to be replaced along Tidewater Dr. from Stanley to Easy Street

Tidewater Dr. utility work from Biltmore south to Thole St. – starting Spring 2013

Conceptual Rendering: Renovation



Questions / Concerns:

- **Group discussion**